

AMENDMENTS TO THE CLAIMS

Claims 1-35 are pending in the application, and all have been rejected in the Office action of August 9, 2005. Claims 1-3, 6, 7, 9-16, 19, 21-27, 30, 31, 33-35 have been amended in this Response as described below. Claims 1, 14, 27, and 30 are independent claims. Claims 2-13, 15-26, 28-29, and 31-35 depend either directly or indirectly from independent claim 1, 14, 27, and 30, respectively.

Listing of Claims:

Claim 1. (Currently amended) An updatable electronic device comprising:
a memory having at least one of the following: firmware and software;

a first firmware component for determining the occurrence of at least one of the following: an error and an exception during the execution of the at least one of the following: firmware and software;

a second firmware component for gathering at least one parameter related to the occurrence of the at least one of the following: an error and an exception;

interface circuitry for receiving update information via a communication network, the update information based upon the at least one parameter; and

a third firmware component for applying the update information to at least a portion of the at least one of the following: firmware and software.

Claim 2. (Currently amended) The device of claim 1 wherein the at least one parameter comprises at least one of the following: a type of error, an error code, an error message, a type of exception, an identifier of a component, an identifier of a module, stack trace information, a computed hash value, and a device characteristic.

Claim 3. (Currently amended) The device of claim 2 wherein the device characteristic comprises at least one of the following: a manufacture identifier, a model identifier, a firmware

version number, a hardware version number, a battery level, a communication statistic, and a serial number.

Claim 4. (Original) The device of claim 1 wherein the device is a mobile handset.

Claim 5. (Original) The device of claim 1 wherein the communication network comprises a wireless network.

Claim 6. (Currently amended) The device of claim 1 further comprising a fourth firmware component for generating an identifier for identifying ~~[[an]]~~the update information used to correct the at least one of the following: an error and an exception.

Claim 7. (Currently amended) The device of claim 1 wherein the device transmits the at least one parameter to at least one server via the communication network, the at least one server identifying the update information used to correct the at least one of the following: an error and an exception.

Claim 8. (Original) The device of claim 1 wherein the update information comprises information for retrieving at least one update package via the communication network.

Claim 9. (Currently amended) The device of claim 1 wherein the update information comprises a set of instructions for converting the at least a portion of the at least one of the following: firmware and software from a first version to a second version.

Claim 10. (Currently amended) The device of claim 1 wherein at least one of the following: the first firmware component, the second firmware component, and the third firmware component initiate at least one of the following: a restart and a reboot of the device.

Claim 11. (Currently amended) The device of claim 10 wherein the device stores information related to the at least one of the following: an error and an exception for use after at least one of the following: a power-up, a restart and a reboot of the device.

Claim 12. (Currently amended) The device of claim 10 wherein the device updates the at least a portion of the at least one of the following: firmware and software following at least one of the following: a power-up, a restart and a reboot of the device.

Claim 13. (Currently amended) The device of claim 1 wherein the at least one of the following: firmware and software comprises a java virtual machine.

Claim 14. (Currently amended) A method of operating an updatable electronic device comprising a memory containing at least one of the following: firmware and software, the method comprising:

determining whether at least one of the following: an error and an exception has occurred;

continuing regular processing if the at least one of the following: an error and an exception has not occurred;

generating an identifier based upon at least one parameter, if the at least one of the following: an error and an exception has occurred;

receiving, via a communication network, update information based upon the identifier;
and

updating at least a portion of the at least one of the following: firmware and software using the update information.

Claim 15. (Currently amended) The device of claim 14 wherein the at least one parameter comprises at least one of the following: a type of error, an error code, an error message, a type of exception, an identifier of a component, an identifier of a module, stack trace information, a computed hash value, and a device characteristic.

Claim 16. (Currently amended) The device of claim 15 wherein the device characteristic comprises at least one of the following: a manufacture identifier, a model identifier, a firmware

version number, a hardware version number, a battery level, a communication statistic, and a serial number.

Claim 17. (Original) The method of claim 14 wherein the device is a mobile handset.

Claim 18. (Original) The method of claim 14 wherein the communication network comprises a wireless network.

Claim 19. (Currently amended) The method of claim 14 wherein the device transmits the at least one parameter to at least one server via the communication network, the at least one server identifying the update information used to correct the at least one of the following: an error and an exception.

Claim 20. (Original) The method of claim 14 wherein the update information comprises information for retrieving at least one update package via the communication network.

Claim 21. (Currently amended) The method of claim 14 wherein the update information comprises a set of instructions for converting the at least a portion of the at least one of the following: firmware and software from a first version to a second version.

Claim 22. (Currently amended) The method of claim 14 further comprising:

initiating at least one of a the following: restart and a reboot of the device.

Claim 23. (Currently amended) The method of claim 14 further comprising:

storing information related to the at least one of the following: an error and an exception for use after at least one of the following: a power-up, a restart and a reboot of the device.

Claim 24. (Currently amended) The method of claim 23 wherein the device updates the at least a portion of the at least one of the following: firmware and software following the at least one of the following: a power-up, a restart and a reboot of the device.

Claim 25. (Currently amended) The method of claim 14 further comprising:

logging the occurrence of the at least one of the following: an error and an exception.

Claim 26. (Currently amended) The method of claim 25 further comprising:
communicating, via the communication network, the logged occurrence of the at least one of the following: an error and an exception.

Claim 27. (Currently amended) A method of operating an updatable electronic device, the method comprising:

determining that at least one of the following: a firmware and a software error has occurred;

gathering at least one parameter related to the at least one of the following: a firmware and a software error;

identifying update information for correcting the at least one of the following: a firmware and a software error;

receiving the update information via a communication network; and

updating at least one of the following: firmware and software using the update information.

Claim 28. (Original) The method of claim 27 wherein the communication network comprises a wireless network.

Claim 29. (Original) The method of claim 27 wherein the update information comprises a set of instructions for converting the at least one of the following: firmware and software from a first version to a second version.

Claim 30. (Currently amended) A network for updating at least one of the following: firmware and software in at least one updatable electronic device, the network comprising:

at least one server receiving at least one of the following: device characteristics and an error report from the at least one updatable electronic device, the at least one server retrieving

appropriate update information based on the at least one of the following: device characteristics and an error report;

the server communicating the update information to the at least one updatable electronic device using a wireless interface; and

the at least one updatable electronic device using the update information to update the at least one of the following: firmware and software.

Claim 31. (Currently amended) The network of claim 30 wherein the update information comprises an update package having a set of instructions for converting the at least one of the following: firmware and software from a first version to a second version.

Claim 32. (Original) The network of claim 30 wherein the updatable electronic device comprises a mobile handset.

Claim 33. (Currently amended) The network of claim 30 wherein the device characteristics comprise at least one of the following: a manufacture identifier, a model identifier, a firmware version number, a hardware version number, a battery level, a communication statistic, and a serial number.

Claim 34. (Currently amended) The network of claim 30 wherein the updatable electronic device further comprises a display for displaying information regarding at least one of the following: an error, an exception, and an event to a user.

Claim 35. (Currently amended) The network of claim 34 wherein the displayed information comprises a user prompt to solicit user approval for at least one of the following: the communication of the update information and the update of the at least one of the following: firmware and software.